



# **STIC Search Report**

**EIC 1700**

**STIC Database Tracking Number: 154527**

**TO: John Cooney**  
**Location: REM 10D61**  
**Art Unit : 1711**  
**May 26, 2005**

**Case Serial Number: 10/807227**

**From: Mrs. Kendra Banks**  
**Location: EIC 1700**  
**REM 4B28**  
**Phone: 571-272-2516**

**Kendra.Mellerson@uspto.gov**

## **Search Notes**

No Cases Reported

US 6,271,278

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: John Cooney Examiner #: 69256 Date: 5/26/05  
Art Unit: 1711 Phone Number ~~301~~ 571-272-1070 Serial Number: 10/807,227  
Mail Box and Bldg/Room Location: 10D61 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Hydrogel Composites and Supraporous hydrogel composites having fast swelling, high mechanical strength, and superabsorbent properties  
Inventors (please provide full names): Kinam Park, Jun Chen, Haesun Park

Earliest Priority Filing Date: 5/13/97 ??

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Litigation Review  
Reiss Appl. #10/807,227  
of PAT # 6,271,278 to app. 08/855,499

No Cases Reported

\*\*\*\*\*  
STAFF USE ONLY

**Current session 26/05/2005**

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QUESTEL.ORBIT (TM) 1998

26/05/05 17\*52\*42

Last connection: 25/05/05 15\*10\*09

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- \*FAMPAT worldwide family file released. Details on website  
..FILE / ..INFO / ..GUIDE

**Query/Command : FILE PLUSPAT**

QUESTEL - Time in minutes : 0,92

The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.99 USD
Cost estimated for the last database search :	0.99 USD
Estimated total session cost :	0.99 USD

Selected file: PLUSPAT

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-To extract cited patents with only high relevancy code, use mem/xctx  
Last update of file: 2005/05/25 (YYYY/MM/DD) 2005-20/UP (last update)

Search statement 1

**Query/Command : US6271278/PN****\*\* SS 1: Results 1**

Search statement 2

**Query/Command : PRT FULL NONSTOP LEGALALL**

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*1 / 1 PLUSPAT - ©QUESTEL-ORBIT - image***PN - US6271278 B1 20010807 [US6271278]**

- TI** - (B1) Hydrogel composites and superporous hydrogel composites having fast swelling, high mechanical strength, and superabsorbent properties
- PA** - (B1) PURDUE RESEARCH FOUNDATION (US)
- PA0** - Purdue Research Foundation, West Lafayette IN [US]
- IN** - (B1) PARK HAESUN (US); CHEN JUN (US); PARK KINAM (US)
- AP** - US85549997 19970513 [1997US-0855499]
- PR** - US85549997 19970513 [1997US-0855499]
- IC** - (B1) C08F-036/04
- EC** - A61L-015/60  
C08F-251/00  
C08F-291/00
- PCL** - ORIGINAL (O) : 521150000; CROSS-REFERENCE (X) : 521102000  
521109100 521121000 521125000 521128000 521130000 521140000  
521142000 521146000 521149000 521182000 521183000 521186000  
521187000
- DT** - Corresponding document
- CT** -  
US3551556; US3641237; US3826678; US4178361; US4525527; US4529739;  
US4649164; US4801457; US5002814; US5089606; US5147343; US5149335;  
US5154713; US5292777; US5324561; US5338766; US5352448; US5403870;  
US5424265; US5451613; US5462972; US5624967; US5750585; WO9727884  
A1  
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- STG** - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001
- AB** - A superporous hydrogel composite is formed by polymerizing one or more ethylenically-unsaturated monomers, and a multiolefinic crosslinking agent, in the presence of particles of a disintegrant and a blowing agent. The disintegrant, which rapidly absorbs water, serves to greatly increase the mechanical strength of the superporous hydrogel and significantly shorten the time required to absorb

water and swell. Superporous hydrogel composites prepared by this method have an average pore size in the range of 10 MU m to 3,000 MU m. Preferred particles of disintegrant include natural and synthetic charged polymers, such as crosslinked sodium carboxymethylcellulose, crosslinked sodium starch glycolate, and crosslinked polyvinylpyrrolidone. The blowing agent is preferably a compound that releases gas bubbles upon acidification, such as NaHCO<sub>3</sub>. Improved hydrogel composites formed without a blowing agent are also provided.

UP - 2001-34

Search statement 2

#### Query/Command : FILE INPADOC

PLUSPAT - Time in minutes : 0,47

The cost estimation below is based on Questel's standard price list

Estimated cost :	1.29 USD
Records displayed and billed :	1
Estimated cost :	1.40 USD
Cost estimated for the last database search :	2.69 USD
Estimated total session cost :	3.68 USD

LGST - Time in minutes : 0,02

The cost estimation below is based on Questel's standard price list

Estimated cost :	0.02 USD
Cost estimated for the last database search :	0.02 USD
Estimated total session cost :	3.70 USD

CRXX - Time in minutes : 0,01

The cost estimation below is based on Questel's standard price list

Estimated cost :	0.01 USD
Cost estimated for the last database search :	0.01 USD
Estimated total session cost :	3.71 USD

LITA - Time in minutes : 0,01

The cost estimation below is based on Questel's standard price list

Estimated cost :	0.02 USD
Cost estimated for the last database search :	0.02 USD
Estimated total session cost :	3.73 USD

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Search statement 1

#### Query/Command : FAM US6271278/PN

1 Patent Groups

**\*\* SS 1: Results 10**

Search statement 2

Query/Command : FAMSTATE NONSTOP

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*1 / 10 INPADOC - ©INPADOC*

**PN** - AU 736940 B2 20010809 [AU-736940]  
**TI** - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
STRENGTH, AND SUPERABSORBENT PROPERTIES  
**IN** - PARK KINAM; CHEN JUN; PARK HAESUN  
**PA** - PURDUE RESEARCH FOUNDATION  
**AP** - AU 69326/98-A 19980508 [1998AU-0069326]  
**PR** - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
US 855499/97-A 19970513 [1997US-0855499]  
**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00

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**PN** - AU 69326/98 A1 19981208 [AU9869326]  
**TI** - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
STRENGTH, AND SUPERABSORBENT PROPERTIES  
**IN** - PARK KINAM; CHEN JUN; PARK HAESUN  
**PA** - KINAM PARK  
**AP** - AU 69326/98-A 19980508 [1998AU-0069326]  
**PR** - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
US 855499/97-A 19970513 [1997US-0855499]  
**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00

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*3 / 10 INPADOC - ©INPADOC*

**PN** - BR 9809815 A 20000627 [BR9809815]  
**TI** - COMPOSTOS HIDROGEL E COMPOSTOS HIDORGEL SUPERPOROSOS  
POSSUINDO PROPRIEDADES DE INTUMESCIMENTO RAPIDO, ALTA  
RESISTENCIA MECANICA E SUPER ABSORVENCIA  
**IN** - PARK KINAM; CHEN JUN; PARK HAESUN  
**PA** - PURDUE RESEARCH FOUNDATION [US]  
**AP** - BR 9809815/98-A 19980508 [1998BR-0009815]  
**PR** - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
US 855499/97-A 19970513 [1997US-0855499]



**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00

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**PN** - CA 2289756 AA 19981119 [CA2289756]  
**TI** - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
 COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
 STRENGTH, AND SUPERABSORBENT PROPERTIES  
 COMPOSITES D'HYDROGEL ET COMPOSITES D'HYDROGEL  
 SUPERPOREUX AVEC ACTION GONFLANTE RAPIDE, RESISTANCE  
 MECANIQUE ELEVEE ET PROPRIETES SUPERABSORBANTES  
**LA** - ENG  
**IN** - CHEN JUN [US]; PARK HAESUN [US]; PARK KINAM [US]  
**PA** - PURDUE RESEARCH FOUNDATION [US]  
**AP** - CA 2289756/98-A 19980508 [1998CA-2289756]  
**PR** - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
 US 855499/97-A 19970513 [1997US-0855499]  
**IC** - B01J-020/28; C08J-009/00; C08L-033/00; C08L-039/06; A61L-015/60

*1 / 1 LEGALI - ©EPO*

**PN** - CA2289756 A1 19981119 [CA2289756]  
**AP** - CA2289756 19980508 [1998CA-2289756]  
**ACTE** - 20030403 CA/AFNE-A [+] NATIONAL PHASE ENTRY  
 EFFECTIVE DATE: 19991115  
 20030820 CA/EEER-A [+] EXAMINATION REQUEST  
 EFFECTIVE DATE: 20030506  
**UP** - 2004-11

*5 / 10 INPADOC - ©INPADOC*

**PN** - CN 1264321 A 20000823 [CN1264321]  
**TI** - Hydrogel composites and superporous hydrogel composites having fast swelling,  
 high mechanical strenght, and superabsorbent properties  
**IN** - PARK KINAM [US]; CHEN JUN [US]; PARK HEISEN [US]  
**PA** - PUDU RES FOUNDATION [US]  
**AP** - CN 98806514/98-A 19980508 [1998CN-0806514]  
**PR** - US 855499/97-A 19970513 [1997US-0855499]  
**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00

*6 / 10 INPADOC - ©INPADOC*

**PN** - EP 988108 A1 20000329 [EP-988108]

**TI** - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
STRENGTH, AND SUPERABSORBENT PROPERTIES

**LA** - ENG

**IN** - PARK KINAM [US]; CHEN JUN [US]; PARK HAESUN [US]

**PA** - PURDUE RESEARCH FOUNDATION [US]

**AP** - EP 98915058/98-A 19980508 [1998EP-0915058]

**PR** - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
US 855499/97-A 19970513 [1997US-0855499]

**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00

**DS** - AT\* BE\* CH\* CY\* DE\* DK\* ES\* FI\* FR\* GB\* GR\* IE\* IT\* LI\* LU\* MC\*  
NL\* PT\* SE\*

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**PN** - EP0988108 A1 20000329 [EP-988108]

**AP** - EP98915058 19980508 [1998EP-0915058]

**ACTE** - 20000329 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000329 EP/17P-A [+]

REQUEST FOR EXAMINATION FILED

EFFECTIVE DATE: 19991213

20000412 EP/RBV-A [+]

DESIGNATED CONTRACTING STATES (CORRECTION):

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000503 EP/RAX-A

EXTENSION OF THE EUROPEAN PATENT TO (CORRECTION)

AL PAYMENT 20000211;LT PAYMENT 20000211;LV PAYMENT

20000211;MK PAYMENT 20000211;RO PAYMENT 20000211;SI PAYMENT

20000211

20000607 EP/RIN1-A

INVENTOR (CORRECTION)

PARK, KINAM

20000607 EP/RIN1-A

INVENTOR (CORRECTION)

CHEN, JUN

20000607 EP/RIN1-A

INVENTOR (CORRECTION)

PARK, HAESUN

20050504 EP/RTI1-A

SUPERPOROUS HYDROGEL COMPOSITES HAVING FAST SWELLING,  
HIGH MECHANICAL STRENGHT, AND SUPERABSORBENT  
PROPERTIES

UP - 2005-18

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7 / 10 INPADOC - ©INPADOC

PN - JP 2002501563 T2 20020115 [JP2002501563]  
AP - JP 548968/98-A 19980508 [1998JP-0548968]  
PR - WO 9800686/98(IB)-W 19980508 [1998WO-IB00686]  
US 855499/97-A 19970513 [1997US-0855499]  
IC - C08L-101/00; A61F-013/53; A61L-015/60; B01J-020/26; C08F-002/44; A61K-031/765; A61K-047/32; A61L-027/00; A61P-003/04

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8 / 10 INPADOC - ©INPADOC

PN - US 6271278 BA 20010807 [US6271278]  
TI - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
STRENGTH, AND SUPERABSORBENT PROPERTIES  
IN - PARK KINAM [US]; CHEN JUN [US]; PARK HAESUN [US]  
PA - PURDUE RESEARCH FOUNDATION [US]  
AP - US 855499/97-A 19970513 [1997US-0855499]  
PR - US 855499/97-A 19970513 [1997US-0855499]  
IC - C08F-036/04

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9 / 10 INPADOC - ©INPADOC

PN - US 2001038831 AA 20011108 [US20010038831]  
TI - SUPER-ABSORBENT HYDROGEL FOAMS  
IN - PARK KIHAM [US]; PARK HAESUN [US]  
PA - PARK KIHAM [US]; PARK HAESUN [US]  
AP - US 811248/01-A 20010316 [2001US-0811248]  
PR - US 811248/01-A 20010316 [2001US-0811248]  
US 855499/97-A3 19970513 [1997US-0855499]  
IC - A61K-031/74; C08J-009/04; A61K-031/765; A61K-031/785; A61K-031/78

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10 / 10 INPADOC - ©INPADOC

PN - WO 9851408 A1 19981119 [WO9851408]  
TI - HYDROGEL COMPOSITES AND SUPERPOROUS HYDROGEL  
COMPOSITES HAVING FAST SWELLING, HIGH MECHANICAL  
STRENGHT, AND SUPERABSORBENT PROPERTIES  
LA - ENG  
IN - PARK KINAM [US]; CHEN JUN [US]; PARK HAESUN [US]  
PA - PARK KINAM [US]

**AP** - WO 9800686/98(IB)-A 19980508 [1998WO-IB00686]  
**PR** - US 855499/97-A 19970513 [1997US-0855499]  
**IC** - B01J-020/28; C08L-033/00; C08L-039/06; A61L-015/60; C08J-009/00  
**DS** - AL\* AM\* AT\* AU\* AZ\* BA\* BB\* BG\* BR\* BY\* CA\* CH\* CN\* CZ\* DE\*  
 DK\* EE\* ES\* FI\* GB\* GE\* GH\* GM\* GW\* HU\* ID\* IL\* IS\* JP\* KE\* KG\*  
 KR\* KZ\* LC\* LK\* LR\* LS\* LT\* LU\* LV\* MD\* MG\* MK\* MN\* MW\* MX\*  
 NO\* NZ\* PL\* PT\* RO\* RU\* SD\* SE\* SG\* SI\* SK\* SL\* TJ\* TM\* TR\* TT\*  
 UA\* UG\* UZ\* VN\* YU\* ZW\* GH GM KE LS MW SD SZ UG ZW AM AZ  
 BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
 MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

1 / 1 LEGALI - ©EPO

**PN** - WO9851408 A1 19981119 [WO9851408]

**AP** - WOIB9800686 19980508 [1998WO-IB00686]

**ACTE** - 19981119 WO/AK [+]

DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH  
SEARCH REPORT

AL AM AT AU AZ BA BB BG BR BY CA CH CN CZ DE DK EE ES FI GB  
GE GH GM GW HU ID IL IS JP KE KG KR KZ LC LK LR LS LT LU LV MD  
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT UA UG UZ VN YU ZW

19981119 WO/AL [+]

DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A  
PUBLISHED APPLICATION WITH SEARCH REPORT

GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT  
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI  
CM GA GN ML MR NE SN TD TG

19990114 WO/DFPE

REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO  
EXPIRATION OF 19TH MONTH FROM PRIORITY DATE

19990407 WO/121

EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS  
DESIGNATED IN THIS APPLICATION

19991112 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

JP 1998 548968A [1998JP-0548968]

19991115 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

CA 2289756A [1998CA-2289756]

20000309 WO/REG; DE/8642 [-]

DE: IMPACT ABOLISHED FOR DE  
<DE>

**UP** - 2003-22

Search statement 2

PATNO IS 6271278

DATE: MAY 26, 2005  
LIBRARY: PATENT  
FILE: ALL

Your search request is:  
PATNO IS 6271278

Number of PATENTS found with your search request through:  
LEVEL 1... 1

Your search request has found 1 PATENT through Level 1.  
To DISPLAY this PATENT press either the KWIC, FULL, CITE or SEGMENTS key.  
To MODIFY your search request, press the M key (for MODIFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEVEL 1 - 1 PATENT

6271278 , August 7, 2001 , Hydrogel composites and superporous hydrogel composites having fast swelling, high mechanical strength, and superabsorbent properties, Park, Kinam - West Lafayette, Indiana; Chen, Jun - Hatfield, Pennsylvania; Park, Haesun - West Lafayette, Indiana, 855499 (08), Purdue Research Foundation, West Lafayette, Indiana, 02, October 28, 1998 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., PURDUE RESEARCH FOUNDATION PURDUE UNIVERSITY 1063 HOVDE HALL WEST LAFAYETTE INDIANA 47907, Reel and Frame Number: 09544/0875

CORE TERMS: hydrogel, superporous, swelling, monomer, sample, composite, polymer, dried, polymerization, foam ...

LEVEL 1 - 1 OF 1 PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6271278

<=11> Get Drawing Sheet 1 of 5

August 7, 2001

Hydrogel composites and superporous hydrogel composites  
having fast swelling, high mechanical strength, and  
superabsorbent properties

REISSUE: March 22, 2004 - Reissue Application filed Ex. Gp.: 1713; Re. S.N.  
10/807,227 (O.G. June 22, 2004)

APPL-NO: 855499 (08)

FILED-DATE: May 13, 1997

GRANTED-DATE: August 7, 2001

CORE TERMS: hydrogel, superporous, swelling, monomer, sample, composite,  
polymer, dried, polymerization, foam ...



6271278 OR 6,271,278

Your search request has found no CASES.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

